

Unintentional Injury: Mortality and Hospitalizations

Publicly funded services to address Unintentional Injury in the MCH population are described in Immunization Program CHILD Profile. In addition the DOH Injury Program addresses unintentional injury.

Key Findings:

Mortality

- In 2003, there were 201 deaths due to unintentional injury (UI) for Washington state residents ages 0-19. The UI death rate for Washington children ages 0-19 decreased from 35.0 per 100,000 in 1980 to 11.9 per 100,000 in 2003. Deaths due to motor vehicle crashes, which are the leading cause of unintentional injury deaths in children, decreased from 20.4 per 100,000 Washington children ages 0-19 in 1980 to 7.2 per 100,000 in 2003.
- Among Washington children ages 0-19, unintentional injury death rates are highest in males, American Indian/Alaska Natives, infants, and adolescents ages 15-19 years.
- While the leading causes of unintentional injury deaths vary by age of the child, the leading causes for all Washington residents ages 0-19 are motor vehicle traffic, drowning, and suffocation.
- The Healthy People 2010 goal is to reduce the UI death rate for the whole population to no more than 17.5 per 100,000 population and motor vehicle crashes to no more than 9.2 deaths per 100,000 population.

Definitions:

Unintentional injury deaths: Include those deaths due to accidental causes.^a

Unintentional injury hospitalizations: Nonfatal hospitalizations due to unintentional injuries (ICD-9 codes E800-E869 and E880-E929). They include adverse effects, which are injuries related to therapeutic use of drugs and adverse effects of medical and surgical care. Unintentional injury hospitalizations include the primary diagnosis only. The data source is the Washington State Comprehensive Hospital Abstract Reporting System (CHARS). Patients hospitalized more than once with the same diagnosis will be counted as separate incidents.

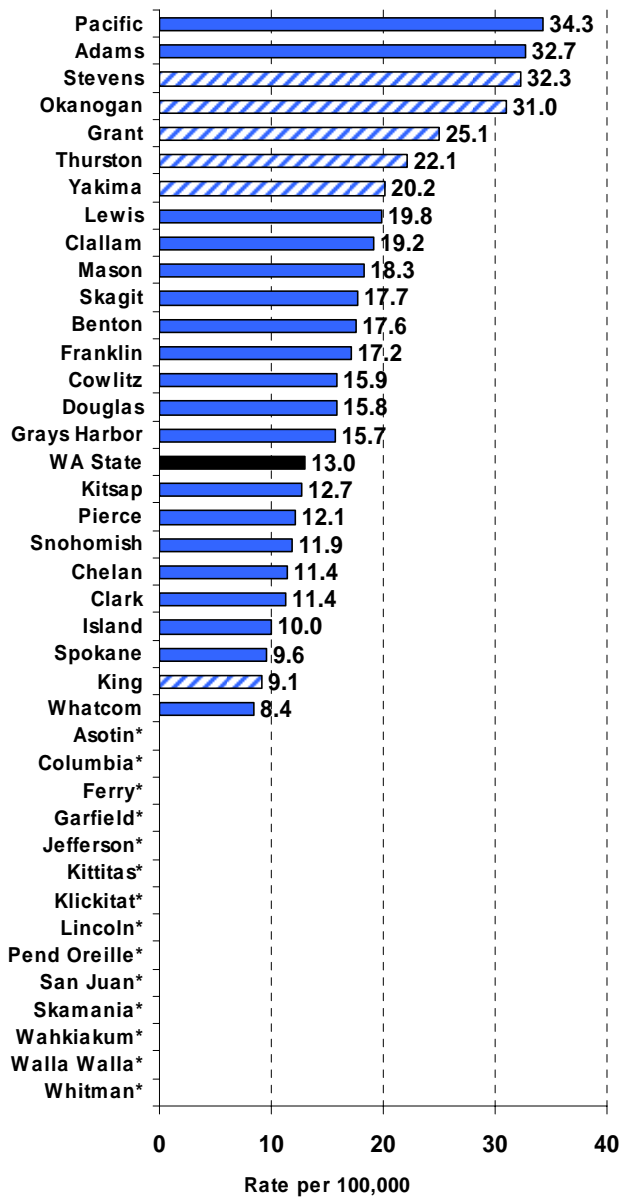
Hospitalizations

- There were 3,087 nonfatal unintentional injury (UI) hospitalizations for Washington children ages 0-19 in 2003, for a rate of 182.0 per 100,000. This represents a 49% decrease from the 1990 rate of 355 per 100,000.
- The highest UI hospitalization rates for Washington children were in infants less than 1 year old and children ages 15-19. Males ages 0-19 had significantly higher UI hospitalization rates than females.
- Washington children in small town rural areas had significantly higher unintentional injury hospitalization rates than children in other areas.
- While the leading causes of unintentional injury hospitalization vary by age, overall the three most common causes for UI hospitalizations for Washington children were falls/jumps/pushes, motor vehicle transport, and struck by or against (which includes injuries caused by being accidentally struck by an object or person).

Mortality

County^{1,2}

**Unintentional Injury Death Rate, Age 0-19
By County
Per 100,000, WA, 2001-2003**

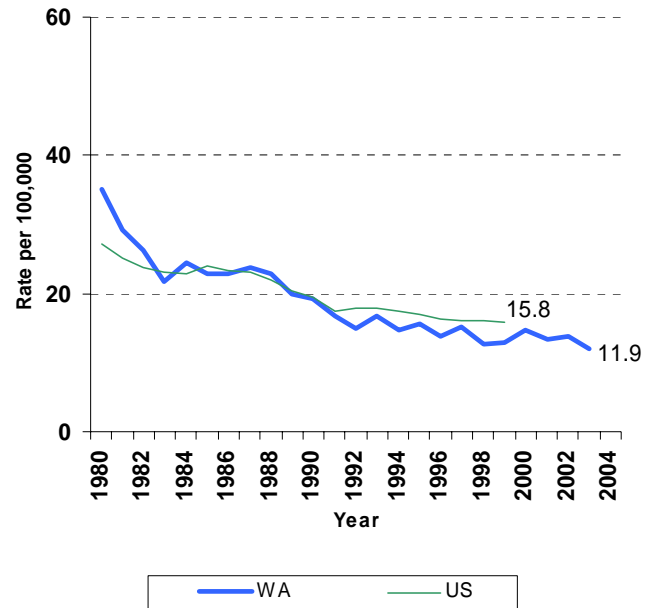


*County rates not calculated if less than 5 events

Significantly different from state based on 95% confidence intervals

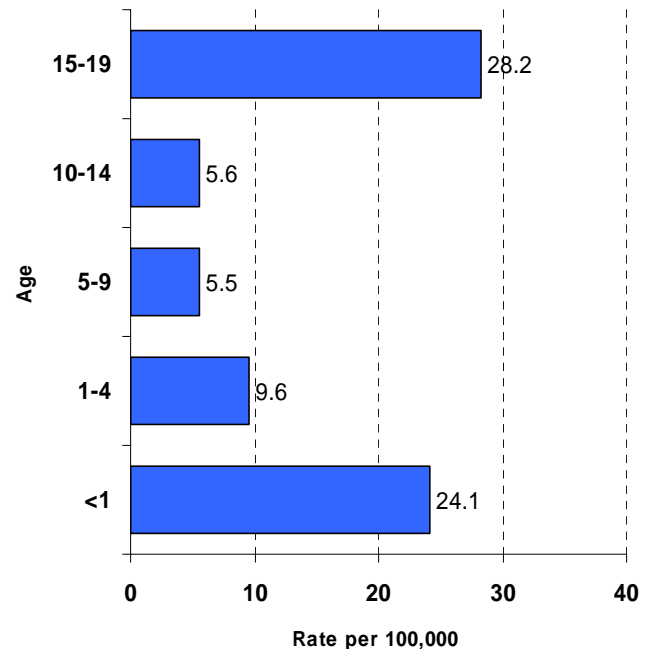
Time Trend^{1,2}

**Unintentional Injury Death Rate
Ages 0-19, By Year
WA State and US, 1980-2003**



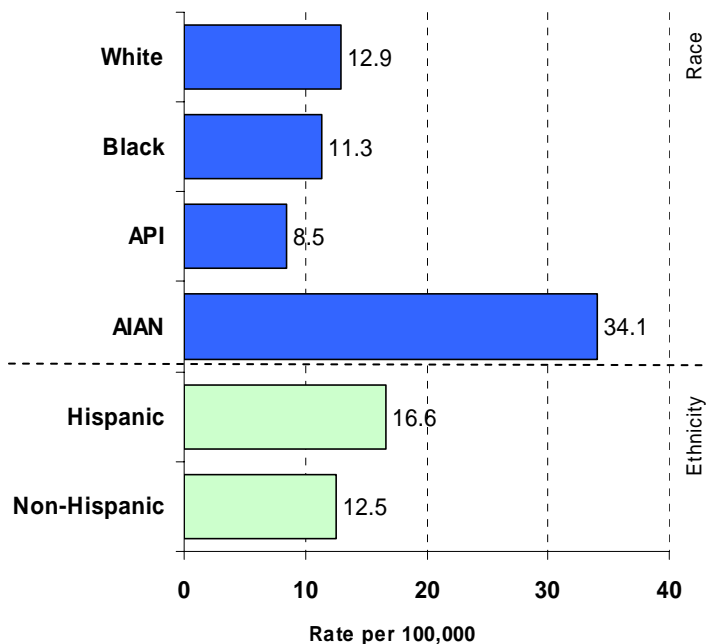
Age^{1,2}

**Unintentional Injury Death Rate
By Age
Per 100,000, WA, 2001-2003**



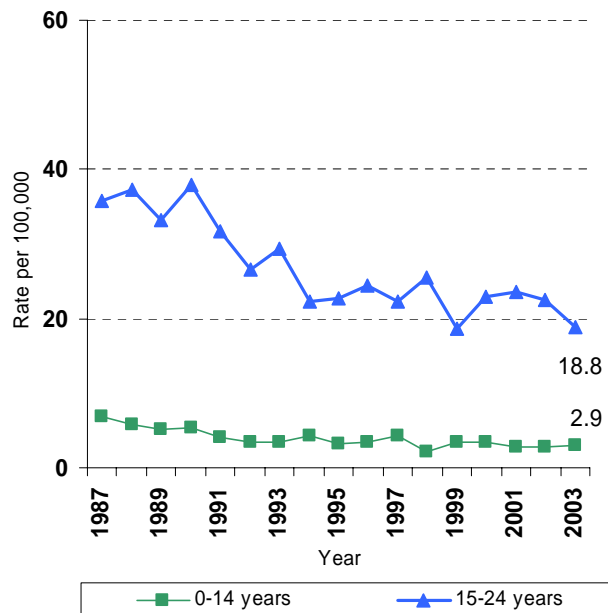
Race and Ethnicity^{1,2,c,d,e}

Unintentional Injury Death Rate, Ages 0-19
By Race and Ethnicity
Per 100,000, WA, 2001-2003



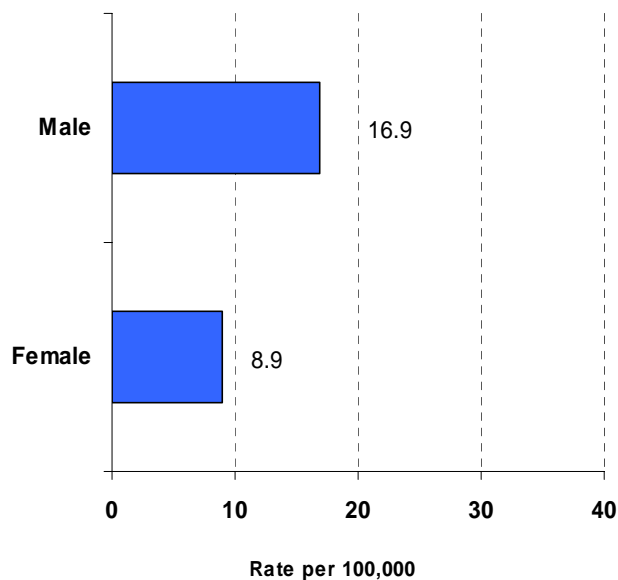
Block Grant Measure: Motor Vehicle Crashes^{1,2}

Motor Vehicle Crash Death Rate
By Age Groups
Per 100,000, WA, 1987-2003



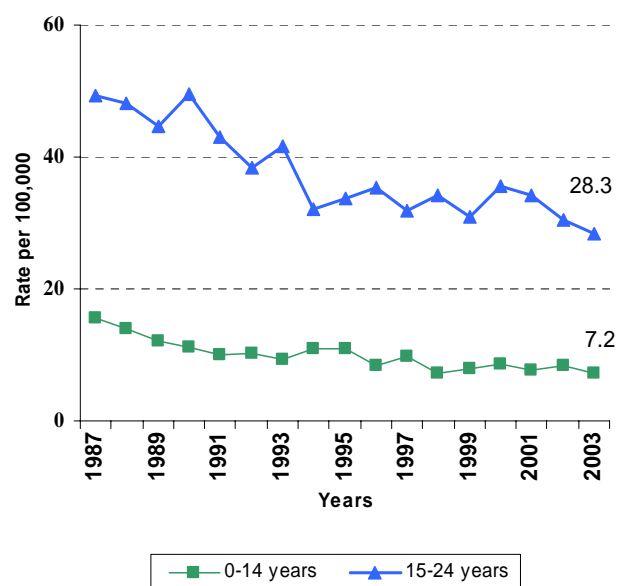
Gender^{1,2}

Unintentional Injury Death Rate, Age 0-19
By Gender
Per 100,000, WA, 2001-2003



Time Trend by Age^{1,2}

Unintentional Injury Death Rate
By Age Groups
Per 100,000, WA, 1987-2003

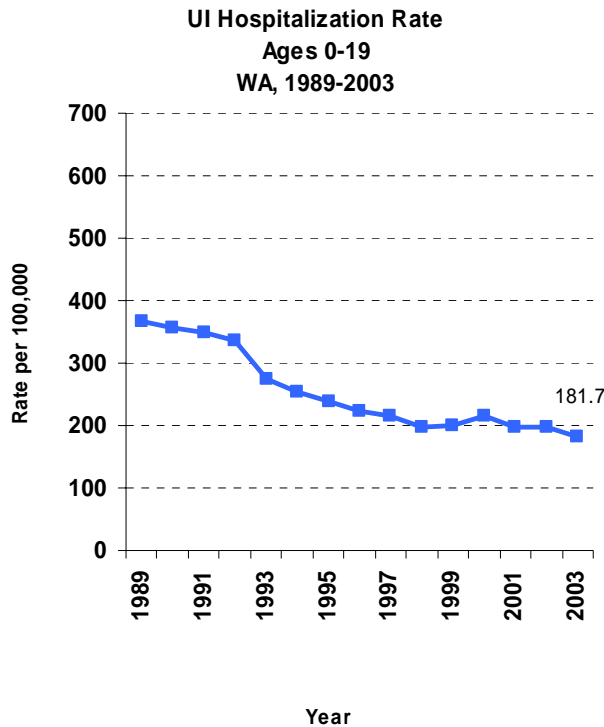


Leading Causes of Unintentional Injury Deaths, 1999-2003
WA Children Ages 0-19, by Age Group³

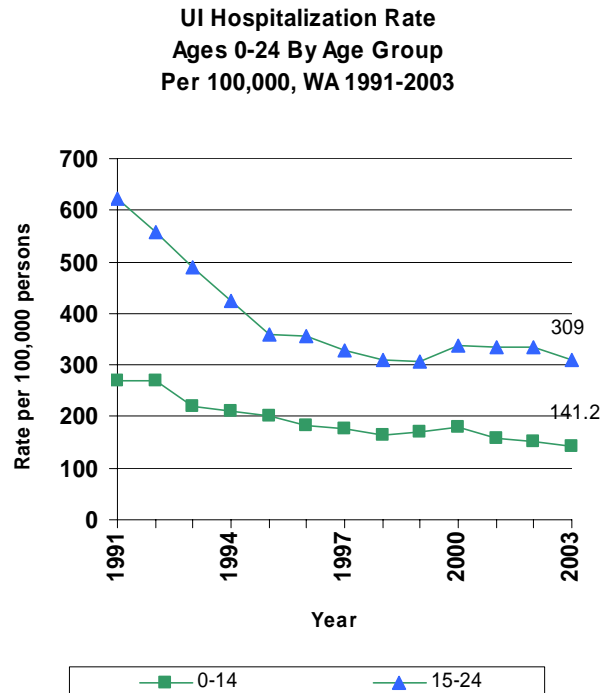
Rank	<1	1-4	5-9	10-14	15-19
1st	Suffocation & obstruction (N=53)	Drowning (N=39)	MVT, occupant (N=44) ^f	MVT, occupant (N=41) ^f	MVT, occupant (N=402) ^f
2nd	MVT, occupant (N=14) ^f	MVT, occupant (N=33) ^f	Drowning (N=17)	Drowning (N=30)	Drowning (N=57)
3rd	Fire/Flame/Hot Object (N=5)	Fire/Flame/Hot Object (N=18)	MVT, pedestrian (N=13)	Suffocation & Obstruction (N=11)	Poisoning (N=36)
4th	Drowning (N=4)	Suffocation & Obstruction (N=17)	Fire/Flame/Hot Object (N=7)	MVT, pedestrian (N=11) ^f	MVT, pedestrian (N=24) ^f

Hospitalizations
(Non-Fatal Injuries)^{g, i}

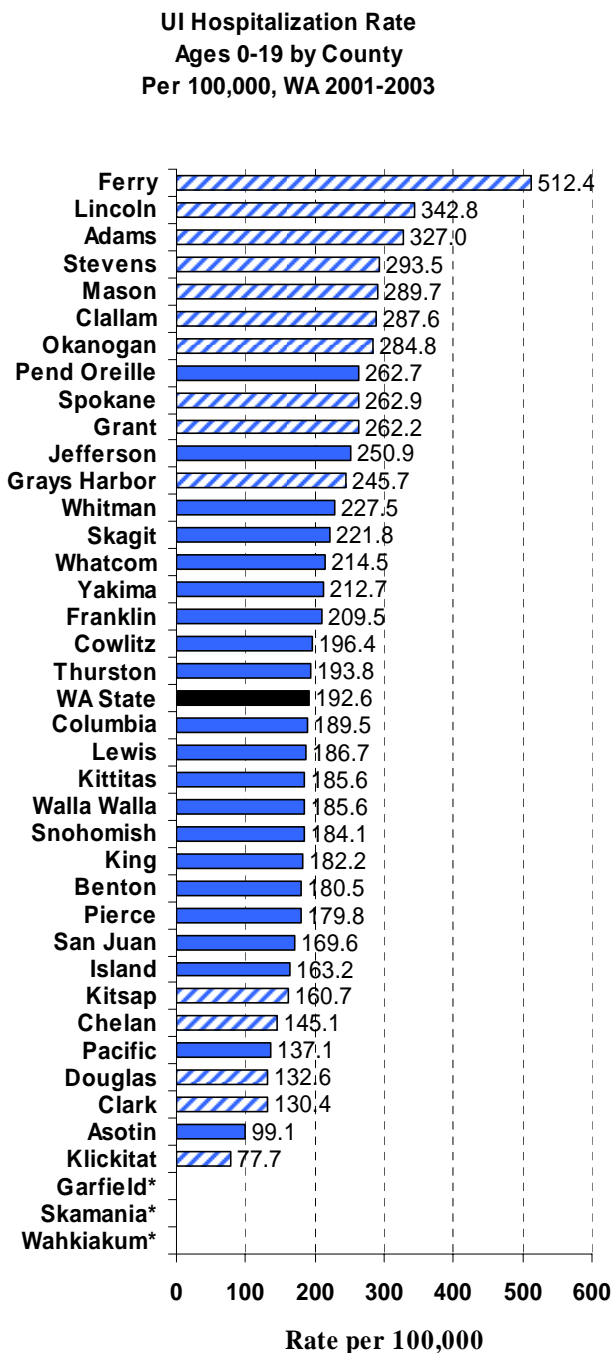
Time Trend^{6,i}




Block Grant Measure: Unintentional Injury 0 to 24 year olds^{6,i}



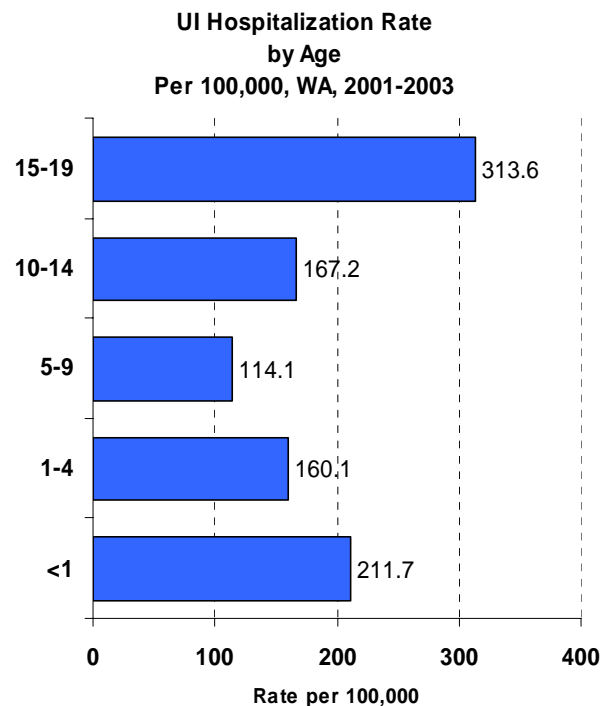
County ^{6,i}



*County rates not calculated if less than 5 events

 Significantly different from state based on 95% confidence intervals

Age ^{6,i}

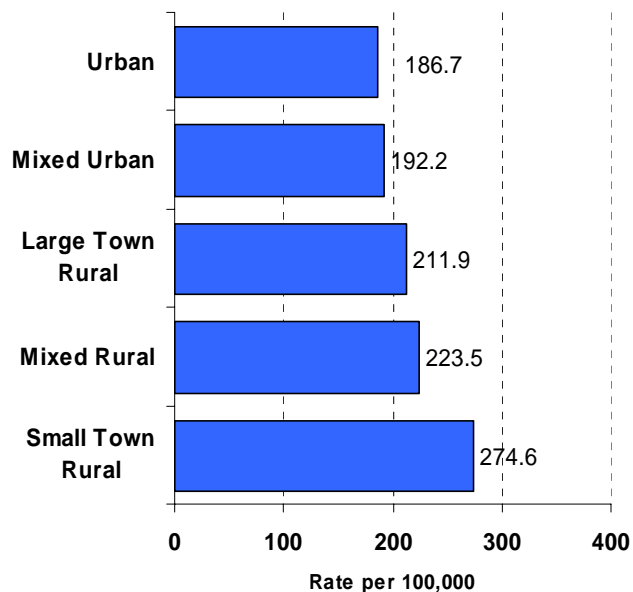


Gender ^{6,i}



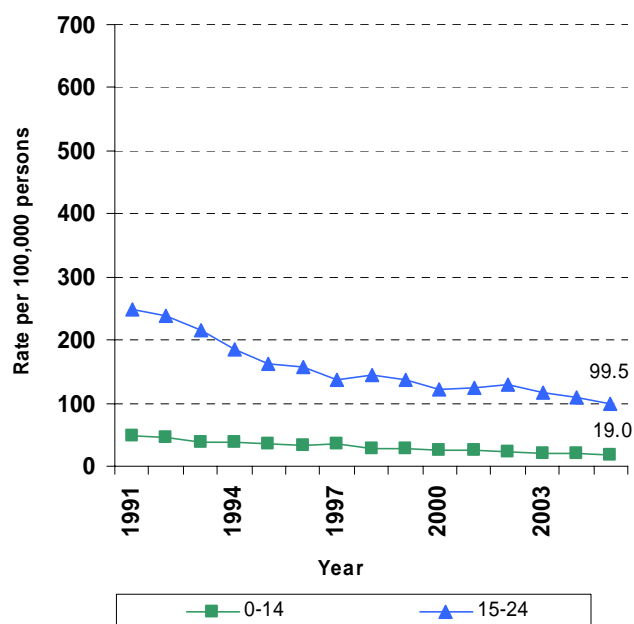
Rural and Urban Residence ^{7,h,i}

Unintentional Injury Hospitalizations
By Urban and Rural
WA, 2001-2003



Motor Vehicle Crashes (MVC) ^{6,i}

MVC Hospitalization Rate
by Age Group
Per 100,000, WA 1991-2003



Leading Causes of Unintentional Injury Hospitalizations, 2001-2003 WA Children Ages 0-19, by Age Group ^{6,i}

Rank	<1	1-4	5-9	10-14	15-19
1 st	Fall/Jump/Push	Fall/Jump/Push	Fall/Jump/Push	Fall/Jump/Push	Motor Vehicle Transport
2 nd	Poisoning	Hot Object/Substance	Motor Vehicle Transport	Motor Vehicle Transport	Fall/Jump/Push
3 rd	Suffocation	Poisoning	Pedal Cyclist, Other	*Other Land Transport *Struck by (or against)	Struck by or against

* In age group 10-14, categories Other Land Transport and Struck by or against are tied for 3rd place in the rankings

Data sources

1. Washington State death certificate data: Vital Statistics 2003, Washington State Department of Health, Center for Health Statistics, March 2005
2. Analysis Software: Public Health – Seattle & King County, Epidemiology, Planning & Evaluation, Software for Public Health Assessment (VistaPHw), 1991-
3. Washington State Department of Health, Center for Health Statistics, Death Records – April 2005 release. Website: http://www.doh.wa.gov/cfh/Injury/data_tables/by_age/fatal/FatalByAge_WashingtonState.pdf
4. Data from the Washington State Child Death Review Database, MCH Assessment Section, Washington State Department of Health, 1999-2001.
5. Healthy People 2010: Understanding and Improving Health, US Department of Health and Human Services, Washington DC US Government Printing Office, 2000.
6. Comprehensive Hospital Abstract Reporting System (CHARS), Washington State Department of Health, Center for Health Statistics. August 2005 release.
7. Washington State Department of Health, Office of Community and Rural Health, November 2005.

Endnotes

- a. The ICD-10 codes for unintentional injury deaths used from 1999 to the present include V01-X59 and Y85-Y86. The ICD-9 codes used prior to 1999 include E800-E869 and E880-E929. Comparability ratio (used to enable comparison)
- b. Significance was determined based on 95% Confidence Intervals.
- c. Population denominators for non-Hispanics are estimated by subtracting the number of Hispanics from the total population and may include unknowns.
- d. AIAN – American Indian/Alaska Native
- e. NHOPI – Native Hawaiian Other Pacific Islander
- f. MVT – Motor Vehicle Transportation
- g. See “Technical Notes” for details regarding hospitalization data
- h. Rural urban differences are based on county level RUCA codes calculated using 2000 census data (see Technical Notes for description of RUCA codes)
- i. Graphs reflect non-fatal injury hospitalizations